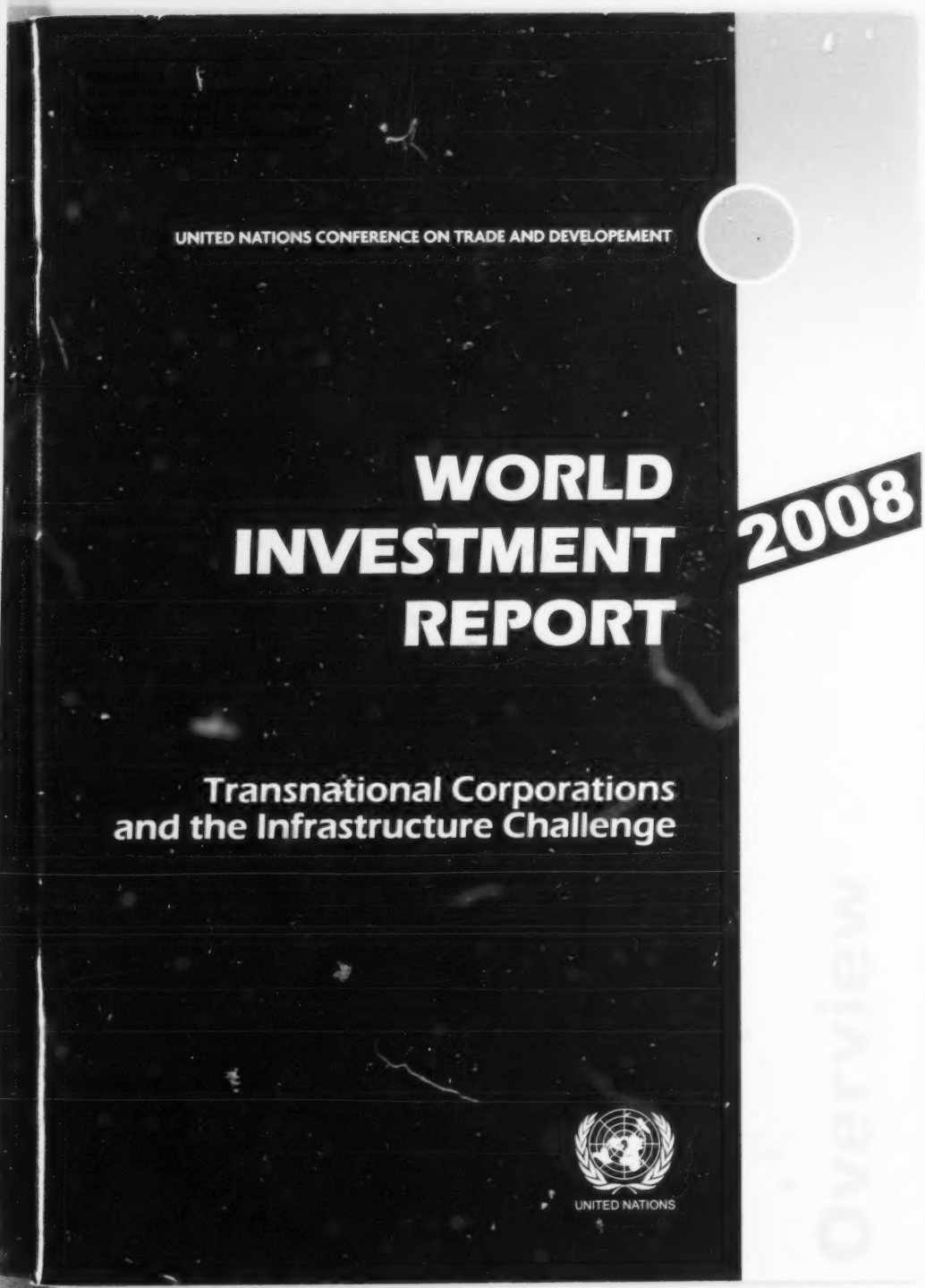
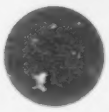

UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPEMENT
WORLD INVESTMENT REPORT
2008
Transnational Corporations and the Infrastructure Challenge
UNITED NATIONS
Overview

UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT



# WORLD INVESTMENT REPORT 2008

## Transnational Corporations and the Infrastructure Challenge

*Overview*

UNITED NATIONS
New York and Geneva, 2008

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Details and percentages in tables do not necessarily add to totals because of rounding.

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# OVERVIEW

## RECORD FLOWS IN 2007, BUT SET TO DECLINE



### *Global FDI flows surpassed the peak of 2000...*

After four consecutive years of growth, global FDI inflows rose in 2007 by 30% to reach $1,833 billion, well above the previous all-time high set in 2000. Despite the financial and credit crises, which began in the second half of 2007, all the three major economic groupings – developed countries, developing countries and the transition economies of South-East Europe and the Commonwealth of Independent States (CIS) – saw continued growth in their inflows (table 1). The increase in FDI largely reflected relatively high economic growth and strong corporate performance in many parts of the world. Reinvested earnings accounted for about 30% of total FDI inflows as a result of increased profits of foreign affiliates, notably in developing countries. To some extent, the record FDI levels in dollar terms also reflected the significant depreciation of the dollar against other major currencies. However, even measured in local currencies, the average growth rate of global FDI flows was still 23% in 2007.

FDI inflows into developed countries reached $1,248 billion. The United States maintained its position as the largest recipient country, followed by the United Kingdom, France, Canada and the Netherlands (figure 1). The European Union (EU) was the largest host region, attracting almost two thirds of total FDI inflows into developed countries.

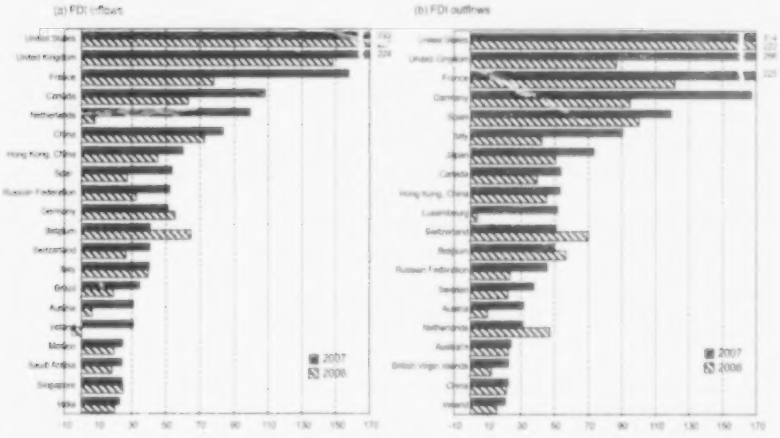
In developing countries, FDI inflows reached their highest level ever ($500 billion) – a 21% increase over 2006. The least developed countries (LDCs) attracted $13 billion worth of FDI in 2007 – also a record high. At the same time, developing countries continued to gain in importance as sources of FDI, with outflows rising to a new record level of $253 billion, mainly as a result of outward expansion by Asian TNCs. FDI inflows into South-East Europe and the CIS also surged, increasing by 50%, to reach $86 billion in 2007. The region has thus seen seven years of uninterrupted growth. Outflows from this region similarly soared, to $51 billion, more than twice the 2006 level. Among developing and transition economies, the three largest recipients were China, Hong Kong (China) and the Russian Federation.

**Table 1. FDI flows, by region and selected countries, 1995–2007**
(Billions of dollars and per cent)

| Region/economy | FDI inflows | | | | | | | FDI outflows | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1995–2000 (Annual average) | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 1995-2000 (Annual average) | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| Developed economies | 539.3 | 442.9 | 361.1 | 403.7 | 611.3 | 940.9 | 1 247.6 | 631.0 | 483.2 | 507.0 | 786.0 | 748.9 | 1 087.2 | 1 692.1 |
| Europe | 327.9 | 316.6 | 279.8 | 218.7 | 505.5 | 599.3 | 848.5 | 450.9 | 279.9 | 307.1 | 402.2 | 689.8 | 736.9 | 1 216.5 |
| European Union | 314.6 | 309.4 | 259.4 | 214.3 | 498.4 | 562.4 | 804.3 | 421.6 | 265.6 | 285.2 | 368.0 | 609.3 | 640.5 | 1 142.2 |
| Japan | 4.6 | 9.2 | 6.3 | 7.8 | 2.8 | - 6.5 | 22.5 | 25.1 | 32.3 | 28.8 | 31.0 | 45.8 | 50.3 | 73.5 |
| United States | 169.7 | 74.5 | 53.1 | 135.8 | 104.8 | 236.7 | 232.8 | 125.9 | 134.9 | 129.4 | 294.9 | 15.4 | 221.7 | 313.8 |
| Other developed countries | 37.1 | 42.6 | 21.8 | 41.3 | - 1.7 | 111.3 | 143.7 | 29.2 | 36.0 | 41.8 | 58.0 | - 2.1 | 78.4 | 88.3 |
| Developing economies | 188.3 | 171.0 | 180.1 | 283.6 | 316.4 | 413.0 | 499.7 | 74.4 | 49.6 | 45.0 | 120.0 | 117.6 | 212.3 | 253.1 |
| Africa | 9.0 | 14.6 | 18.7 | 18.0 | 29.5 | 45.8 | 53.0 | 2.4 | 0.3 | 1.2 | 2.0 | 2.3 | 7.8 | 6.1 |
| Latin America and the Caribbean | 72.9 | 57.8 | 45.9 | 94.4 | 76.4 | 92.9 | 126.3 | 21.1 | 12.1 | 21.3 | 28.0 | 35.8 | 63.3 | 52.3 |
| Asia and Oceania | 106.4 | 98.6 | 115.5 | 171.2 | 210.6 | 274.3 | 320.5 | 51.0 | 37.3 | 22.5 | 89.9 | 79.5 | 141.1 | 194.8 |
| Asia | 105.9 | 98.5 | 115.1 | 170.3 | 210.0 | 272.9 | 319.3 | 51.0 | 37.2 | 22.5 | 89.9 | 79.4 | 141.1 | 194.7 |
| West Asia | 3.3 | 5.5 | 12.0 | 20.6 | 42.6 | 64.0 | 71.5 | 0.9 | 3.2 | - 1.9 | 7.7 | - 2.3 | 23.2 | 44.2 |
| East Asia | 70.7 | 67.7 | 72.7 | 106.3 | 116.2 | 131.9 | 156.7 | 39.6 | 27.6 | 17.4 | 62.9 | 49.8 | 82.3 | 102.9 |
| China | 41.8 | 52.7 | 53.5 | 60.6 | 72.4 | 72.7 | 83.5 | 2.0 | 2.5 | 2.9 | 5.5 | 12.3 | 21.2 | 22.5 |
| South Asia | 3.9 | 7.1 | 5.9 | 8.1 | 12.1 | 25.8 | 30.6 | 0.3 | 1.8 | 1.6 | 2.3 | 3.5 | 13.4 | 14.2 |
| South-East Asia | 28.0 | 18.1 | 24.6 | 35.2 | 39.1 | 51.2 | 60.5 | 10.2 | 4.7 | 5.3 | 17.0 | 13.8 | 22.2 | 33.5 |
| Oceania | 0.5 | 0.1 | 0.4 | 0.9 | 0.5 | 1.4 | 1.2 | - 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 |
| South-East Europe and CIS (transition economies) | 7.3 | 11.3 | 19.9 | 30.4 | 31.0 | 57.2 | 85.9 | 2.0 | 4.6 | 10.7 | 14.1 | 14.3 | 23.7 | 51.2 |
| South-East Europe | 1.2 | 2.2 | 4.1 | 3.5 | 4.8 | 10.0 | 11.9 | 0.1 | 0.5 | 0.1 | 0.4 | 0.3 | 0.4 | 1.4 |
| CIS | 6.1 | 9.1 | 15.8 | 26.9 | 26.1 | 47.2 | 74.0 | 1.9 | 4.1 | 10.6 | 13.8 | 14.0 | 23.3 | 49.9 |
| World | 734.9 | 625.2 | 561.1 | 717.7 | 958.7 | 1 411.0 | 1 833.3 | 707.4 | 537.4 | 562.8 | 920.2 | 880.8 | 1 323.2 | 1 996.5 |
| Memorandum: percentage share in world FDI flows | | | | | | | | | | | | | | |
| Developed economies | 73.4 | 70.8 | 64.4 | 56.2 | 63.8 | 66.7 | 68.1 | 89.2 | 89.9 | 90.1 | 85.4 | 85.0 | 82.2 | 84.8 |
| Developing economies | 25.6 | 27.4 | 32.1 | 39.5 | 33.0 | 29.3 | 27.3 | 10.5 | 9.2 | 8.0 | 13.0 | 13.3 | 16.0 | 12.7 |
| South-East Europe and CIS (transition economies) | 1.0 | 1.8 | 3.5 | 4.2 | 3.2 | 4.1 | 4.7 | 0.3 | 0.9 | 1.9 | 1.5 | 1.6 | 1.8 | 2.6 |

*Source:* UNCTAD, *World Investment Report 2008: Transnational Corporations and the Infrastructure Challenge*, annex table B.1 and FDI database (www.unctad.org/fdistatistics).

**Figure 1. Global FDI flows, top 20 economies, 2006, 2007[a]**
(Billions of dollars)




*Source*: UNCTAD, *World Investment Report 2008: Transnational Corporations and the Infrastructure Challenge*, annex table B.1 and based on FDI/TNC database (www.unctad.org/fdistatistics).
[a] Ranked by the magnitude of 2007 FDI flows.

## ...driven by record values of cross-border M&As.

Continued consolidation through cross-border mergers and acquisitions (M&As) contributed substantially to the global surge in FDI. In 2007, the value of such transactions amounted to $1,637 billion, 21% higher than the previous record in 2000. Thus, overall, the financial crisis, starting with the sub-prime mortgage crisis in the United States, did not have a visible dampening effect on global cross-border M&As in 2007. On the contrary, in the latter half of 2007 some very large deals took place, including the $98 billion acquisition of ABN-AMRO Holding NV by the consortium of Royal Bank of Scotland, Fortis and Santander – the largest deal in banking history – and the acquisition of Alcan (Canada) by Rio Tinto (United Kingdom).

## The largest TNCs pursued further expansion abroad...

The production of goods and services by an estimated 79,000 TNCs and their 790,000 foreign affiliates continues to expand, and their FDI stock exceeded $15 trillion in 2007. UNCTAD estimates that total sales of TNCs amounted to $31 trillion – a 21% increase over 2006. The value added (gross product) of foreign affiliates worldwide represented an estimated 11% of global GDP in 2007, and the number of employees rose to some 82 million (table 2).

The universe of TNCs is expanding. Manufacturing and petroleum companies, such as General Electric, British Petroleum, Shell, Toyota and Ford Motor, retain some of the top positions in UNCTAD's ranking of the 25 largest non-financial TNCs in the

**Table 2. Selected indicators of FDI and international production, 1982–2007**

| Item | Value at current prices ($ billion) | | | | Annual growth rate (Per cent) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1982 | 1990 | 2006 | 2007 | 1986–1990 | 1991–1995 | 1996–2000 | 2004 | 2005 | 2006 | 2007 |
| FDI inflows | 58 | 207 | 1 411 | 1 833 | 23 6 | 22 1 | 39 9 | 27 9 | 33 6 | 47 2 | 29 9 |
| FDI outflows | 27 | 239 | 1 323 | 1 997 | 25 9 | 16 5 | 36 1 | 63 5 | -4 3 | 50 2 | 50 9 |
| FDI inward stock | 789 | 1 941 | 12 470 | 15 211 | 15 1 | 8 6 | 16 1 | 17 3 | 6 2 | 22 5 | 22 0 |
| FDI outward stock | 579 | 1 785 | 12 756 | 15 602 | 18 1 | 10 6 | 17 2 | 16 4 | 3 9 | 20 4 | 22 3 |
| Income on inward FDI | 44 | 74 | 950 | 1 128 | 10 2 | 35 3 | 13 1 | 31 3 | 31 1 | 24 3 | 18 7 |
| Income on outward FDI | 46 | 120 | 1 038 | 1 220 | 18 7 | 20 2 | 10 2 | 42 4 | 27 4 | 17 1 | 17 5 |
| Cross-border M&As | .. | 200 | 1 118 | 1 637 | 26 6 | 19 5 | 51 5 | 37 6 | 64 2 | 20 3 | 46 4 |
| Sales of foreign affiliates | 2 741 | 6 126 | 25 844 | 31 197 | 19 3 | 8 8 | 8 4 | 15 0 | 1 8 | 22 2 | 20 7 |
| Gross product of foreign affiliates | 676 | 1 501 | 5 049 | 6 029 | 17 0 | 6 7 | 7 3 | 15 9 | 5 9 | 21 2 | 19 4 |
| Total assets of foreign affiliates | 2 206 | 6 036 | 55 818 | 68 716 | 17 7 | 13 7 | 19 3 | -1 0 | 20 6 | 18 6 | 23 1 |
| Exports of foreign affiliates | 688 | 1 523 | 4 950 | 5 714 | 21 7 | 8 4 | 3 9 | 21 2 | 12 8 | 15 2 | 15 4 |
| Employment of foreign affiliates (thousands) | 21 524 | 25 103 | 70 003 | 81 615 | 5 3 | 5 5 | 11 5 | 3 7 | 4 9 | 21 6 | 16 6 |
| *Memorandum* | | | | | | | | | | | |
| GDP (in current prices) | 12 083 | 22 163 | 48 925 | 54 568 | 9 4 | 5 9 | 1 3 | 12 6 | 8 3 | 8 3 | 11 5 |
| Gross fixed capital formation | 2 798 | 5 102 | 10 922 | 12 356 | 10 0 | 5 4 | 1 1 | 15 2 | 12 5 | 10 9 | 13 1 |
| Royalties and licence fee receipts | 9 | 29 | 142 | 164 | 21 1 | 14 6 | 8 1 | 23 7 | 10 6 | 10 5 | 15 4 |
| Exports of goods and non-factor services | 2 395 | 4 417 | 14 848 | 17 138 | 11 6 | 7 9 | 3 8 | 21 2 | 12 8 | 15 2 | 15 4 |

*Source*: UNCTAD, *World Investment Report 2008: Transnational Corporations and the Infrastructure Challenge*, table I.4.

world (table 3). However, TNCs in services, including in infrastructure, have become increasingly prominent during the past decade: 20 of them featured among the top 100 in 2006, compared with only 7 in 1997.

The activities of the 100 largest TNCs increased significantly in 2006, with foreign sales and foreign employment almost 9% and 7% higher respectively, than in 2005. Growth was particularly high for the 100 largest TNCs from developing countries: in 2006, their foreign assets were estimated at $570 billion – a 21% increase over 2005. Their countries of origin have changed little over the past 10 years, with companies from East and South-East Asia dominating the list of the top 25 such TNCs (table 4).

## ....while sovereign wealth funds are emerging as new actors on the FDI scene.

A new feature of global FDI is the emergence of sovereign wealth funds (SWFs) as direct investors. Benefiting from a rapid accumulation of reserves in recent years, these funds (with $5 trillion assets under management) tend to have a higher risk tolerance and higher expected returns than traditional official reserves managed by monetary authorities. Although the history of SWFs dates back to the 1950s, they have attracted global attention only in recent years following their involvement in some large-scale cross-border M&A activities and their major capital injections into some troubled financial institutions in developed countries.

**Table 3. The world's top 25 non-financial TNCs, ranked by foreign assets, 2006[a]**
(Millions of dollars and number of employees)

| Ranking by Foreign assets | TNI[b] | II | Corporation | Home economy | Industry | Assets | | Sales | | Employment | | TNI[b] (Per cent) | No. of affiliates | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Foreign | Total | Foreign | Total | Foreign | Total | | Foreign | Total | II |
| 1 | 71 | 54 | General Electric | United States | Electrical & electronic equipment | 442 278 | 697 239 | 74 285 | 163 391 | 164 000 | 319 000 | 53 | 785 | 1 117 | 70 |
| 2 | 14 | 68 | British Petroleum Company Plc | United Kingdom | Petroleum expl./ref./distr. | 170 326 | 217 601 | 215 879 | 270 602 | 80 300 | 97 100 | 80 | 337 | 529 | 64 |
| 3 | 87 | 93 | Toyota Motor Corporation | Japan | Motor vehicles | 164 627 | 273 853 | 76 529 | 205 918 | 113 967 | 299 394 | 45 | 169 | 419 | 40 |
| 4 | 34 | 79 | Royal Dutch/Shell Group | United Kingdom Netherlands | Petroleum expl./ref./distr. | 161 122 | 235 276 | 182 538 | 318 845 | 90 000 | 108 000 | 70 | 518 | 926 | 56 |
| 5 | 40 | 55 | Exxonmobil Corporation | United States | Petroleum expl./ref./distr. | 154 993 | 219 015 | 252 680 | 365 467 | 51 723 | 82 100 | 68 | 278 | 346 | 80 |
| 6 | 78 | 64 | Ford Motor Company | United States | Motor vehicles | 131 062 | 278 554 | 78 968 | 160 123 | 155 000 | 283 000 | 50 | 162 | 247 | 66 |
| 7 | 7 | 99 | Vodafone Group Plc | United Kingdom | Telecommunications | 126 190 | 144 366 | 32 641 | 39 021 | 53 138 | 63 394 | 85 | 30 | 130 | 23 |
| 8 | 26 | 51 | Total | France | Petroleum expl./ref./distr. | 120 645 | 138 579 | 146 672 | 192 952 | 57 239 | 95 070 | 74 | 429 | 598 | 72 |
| 9 | 96 | 36 | Electricite De France | France | Electricity, gas and water | 111 916 | 235 857 | 33 879 | 73 933 | 17 185 | 155 968 | 35 | 199 | 249 | 80 |
| 10 | 92 | 18 | Wal-Mart Stores | United States | Retail | 110 199 | 151 193 | 77 116 | 344 992 | 540 000 | 1 910 000 | 41 | 146 | 163 | 90 |
| 11 | 37 | 34 | Telefonica SA | Spain | Telecommunications | 101 891 | 143 530 | 41 093 | 66 367 | 167 881 | 224 939 | 69 | 165 | 205 | 80 |
| 12 | 77 | 88 | E.On | Germany | Electricity, gas and water | 94 304 | 167 565 | 32 154 | 85 007 | 46 598 | 80 612 | 51 | 279 | 590 | 47 |
| 13 | 86 | 82 | Deutsche Telekom AG | Germany | Telecommunications | 93 488 | 171 421 | 36 240 | 76 963 | 88 808 | 248 800 | 46 | 143 | 263 | 54 |
| 14 | 58 | 65 | Volkswagen Group | Germany | Motor vehicles | 91 823 | 179 906 | 95 761 | 131 571 | 155 935 | 324 875 | 57 | 178 | 272 | 65 |
| 15 | 73 | 57 | France Telecom | France | Telecommunications | 90 871 | 135 876 | 30 448 | 64 863 | 82 148 | 191 036 | 52 | 145 | 211 | 69 |
| 16 | 90 | 63 | ConocoPhillips | United States | Petroleum expl./ref./distr. | 89 528 | 164 781 | 55 781 | 183 650 | 17 188 | 38 400 | 43 | 118 | 179 | 66 |
| 17 | 56 | 89 | Chevron Corporation | United States | Petroleum expl./ref./distr. | 85 735 | 132 628 | 111 608 | 204 892 | 33 700 | 62 500 | 58 | 97 | 226 | 43 |
| 18 | 11 | 75 | Honda Motor Co Ltd. | Japan | Motor vehicles | 76 264 | 101 190 | 77 605 | 95 333 | 148 544 | 167 231 | 82 | 141 | 243 | 58 |
| 19 | 36 | 62 | Suez | France | Electricity, gas and water | 75 151 | 96 714 | 42 002 | 55 563 | 76 943 | 139 814 | 69 | 586 | 884 | 66 |
| 20 | 45 | 48 | Siemens AG | Germany | Electrical & electronic equipment | 74 585 | 119 812 | 74 858 | 109 553 | 314 000 | 475 000 | 66 | 919 | 1 224 | 75 |
| 21 | 10 | 11 | Hutchison Whampoa Limited | Hong Kong, China | Diversified | 70 679 | 87 146 | 28 619 | 34 428 | 182 149 | 220 000 | 82 | 115 | 125 | 92 |
| 22 | 84 | 85 | RWE Group | Germany | Electricity, gas and water | 68 202 | 123 080 | 22 142 | 55 521 | 30 752 | 68 534 | 47 | 221 | 430 | 51 |
| 23 | 9 | 7 | Nestlé SA | Switzerland | Food & beverages | 66 677 | 83 426 | 57 234 | 78 528 | 257 434 | 265 000 | 83 | 467 | 502 | 93 |
| 24 | 62 | 38 | BMW AG | Germany | Motor vehicles | 66 053 | 104 118 | 48 172 | 61 472 | 26 575 | 106 575 | 56 | 138 | 174 | 79 |
| 25 | 51 | 33 | Procter & Gamble | United States | Diversified | 64 487 | 138 014 | 44 530 | 76 476 | 101 220 | 138 000 | 59 | 369 | 458 | 81 |

*Source:* UNCTAD, *World Investment Report 2008: Transnational Corporations and the Infrastructure Challenge*, annex table A.I.15.

[a] All data are based on the companies' annual reports unless otherwise stated. Data on affiliates are based on Dun and Bradstreet's Who owns Whom database.

[b] TNI, the Transnationality Index, is calculated as the average of the following three ratios: foreign assets to total assets, foreign sales to total sales, and foreign employment to total employment.

**Table 4. The top 25 non-financial TNCs from developing countries, ranked by foreign assets, 2006 [a]**
(Millions of dollars and number of employees)

| Ranking by: | | | | | | Assets | | Sales | | Employment | | TNI [b] (Per cent) | No. of affiliates | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Foreign assets | TNI [b] | II | Corporation | Home economy | Industry | Foreign | Total | Foreign | Total | Foreign | Total | | Foreign | Total | II |
| 1 | 18 | 9 | Hutchison Whampoa Limited | Hong Kong, China | Diversified | 70 679 | 87 146 | 28 619 | 34 428 | 182 149 | 220 000 | 82.3 | 115 | 125 | 92.0 |
| 2 | 88 | 94 | Petronas - Petroliam Nasional Bhd | Malaysia | Petroleum expl./ref./distr. | 30 668 | 85 201 | 14 937 | 50 984 | 3 965 | 33 439 | 25.7 | 4 | 78 | 5.1 |
| 3 | 53 | 11 | Samsung Electronics Co., Ltd. | Republic of Korea | Electrical & electronic equipment | 27 011 | 87 111 | 71 590 | 91 856 | 29 472 | 85 813 | 47.8 | 78 | 87 | 89.7 |
| 4 | 21 | 4 | Cemex S.A. | Mexico | Non-metalic mineral products | 24 411 | 29 749 | 14 595 | 18 114 | 39 505 | 54 635 | 78.3 | 493 | 519 | 95.0 |
| 5 | 86 | 32 | Hyundai Motor Company | Republic of Korea | Motor vehicles | 19 581 | 76 064 | 30 596 | 68 468 | 5 093 | 54 711 | 26.6 | 19 | 28 | 67.9 |
| 6 | 33 | 3 | Singtel Ltd. | Singapore | Telecommunications | 18 678 | 21 288 | 5 977 | 8 575 | 8 606 | 19 000 | 67.6 | 103 | 108 | 95.4 |
| 7 | 92 | 86 | CITIC Group | China | Diversified | 17 623 | 117 355 | 2 462 | 10 113 | 18 305 | 107 340 | 18.9 | 12 | 112 | 10.7 |
| 8 | 65 | 10 | Formosa Plastic Group | Taiwan Province of China | Chemicals | 16 754 | 75 760 | 13 002 | 50 445 | 67 129 | 89 736 | 40.9 | 11 | 12 | 91.7 |
| 9 | 28 | 18 | Jardine Matheson Holdings Ltd. | Hong Kong, China | Diversified | 16 704 | 20 378 | 12 527 | 16 281 | 58 203 | 110 125 | 70.6 | 108 | 126 | 85.7 |
| 10 | 57 | 74 | LG Corp. | Republic of Korea | Electrical & electronic equipment | 15 016 | 53 915 | 43 902 | 70 613 | 36 053 | 70 000 | 47.2 | 3 | 12 | 25.0 |
| 11 | 73 | 66 | Companhia Vale do Rio Doce | Brazil | Mining & quarrying | 14 974 | 60 954 | 37 063 | 46 746 | 3 982 | 52 646 | 37.1 | 17 | 52 | 32.7 |
| 12 | 94 | 88 | Petroleo Brasileiro S.A. - Petrobras | Brazil | Petroleum expl./ref./distr. | 10 454 | 98 680 | 17 845 | 72 347 | 7 414 | 62 266 | 15.7 | 7 | 74 | 9.5 |
| 13 | 69 | 73 | China Ocean Shipping (Group) Company | China | Transport and storage | 10 397 | 18 711 | 8 777 | 15 737 | 4 432 | 69 549 | 39.2 | 245 | 947 | 25.9 |
| 14 | 54 | 54 | América Móvil | Mexico | Telecommunications | 8 701 | 29 473 | 9 617 | 21 526 | 27 506 | 39 876 | 47.7 | 16 | 33 | 48.5 |
| 15 | 89 | 56 | Petróleos De Venezuela | Venezuela, Bol. Rep. Of | Petroleum expl./ref./distr. | 8 534 | 60 305 | 32 773 | 63 736 | 5 373 | 49 180 | 25.5 | 30 | 65 | 46.2 |
| 16 | 50 | 8 | Mobile Telecommunications Company | Kuwait | Telecommunications | 7 968 | 12 027 | 3 373 | 4 185 | 975 | 12 700 | 51.5 | 37 | 40 | 92.5 |
| 17 | 41 | 85 | Capitaland Limited | Singapore | Real Estate | 7 781 | 13 463 | 1 461 | 2 053 | 16 261 | 32 876 | 59.5 | 25 | 233 | 10.7 |
| 18 | 45 | 15 | Hon Hai Precision Industries | Taiwan Province of China | Electrical & electronic equipment | 7 606 | 19 223 | 16 801 | 40 507 | 322 372 | 382 000 | 55.1 | 82 | 94 | 87.2 |
| 19 | 80 | 65 | China State Construction Engineering Corporation | China | Construction | 6 998 | 15 986 | 4 483 | 18 544 | 25 000 | 119 000 | 29.7 | 23 | 70 | 32.9 |
| 20 | 67 | 5 | Kia Motors | Republic of Korea | Motor vehicles | 6 767 | 18 655 | 11 525 | 21 316 | 10 377 | 33 005 | 40.6 | 15 | 16 | 93.8 |
| 21 | 100 | 90 | China National Petroleum Corporation | China | Petroleum expl./ref./distr. | 6 374 | 178 843 | 3 036 | 114 443 | 22 000 | 1 167 129 | 2.7 | 5 | 65 | 7.7 |
| 22 | 72 | 82 | New World Development Co., Ltd. | Hong Kong, China | Diversified | 6 147 | 18 535 | 1 430 | 2 995 | 16 949 | 54 000 | 37.4 | 8 | 63 | 12.7 |
| 23 | 77 | 68 | CLP Holdings | Hong Kong, China | Electricity, gas and water | 6 096 | 15 965 | 1 283 | 4 951 | 1 827 | 6 087 | 31.4 | 3 | 10 | 30.0 |
| 24 | 90 | 40 | Telefonos De Mexico S.A. De C.V. | Mexico | Telecommunications | 5 790 | 24 265 | 4 295 | 16 084 | 16 704 | 76 394 | 24.1 | 44 | 73 | 60.3 |
| 25 | 87 | 47 | Sasol Limited | South Africa | Industrial chemicals | 5 709 | 14 749 | 2 920 | 8 875 | 2 205 | 27 933 | 26.5 | 14 | 26 | 53.8 |

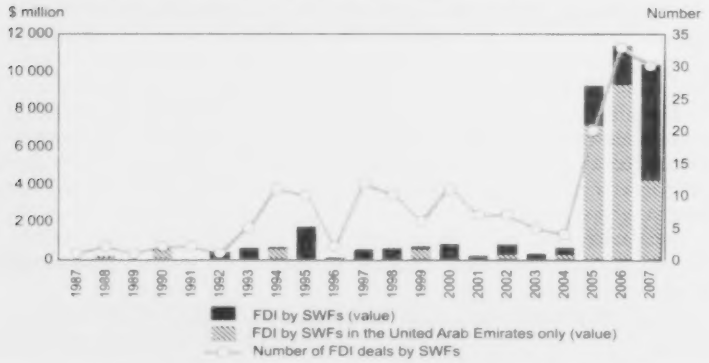
*Source:* UNCTAD, *World Investment Report 2008: Transnational Corporations and the Infrastructure Challenge*, annex table A.I.16.

[a] All data are based on the companies' annual reports unless otherwise stated. Data of affiliates are from Dun and Bradstreet's *Who Owns Whom* database.

[b] TNI is calculated as the average of the following three ratios: foreign assets to total assets, foreign sales to total sales, and foreign employment to total employment.

While the amounts invested by SWFs in the form of FDI remain relatively small, they have been growing in recent years (figure 2). Only 0.2% of their total assets in 2007 were related to FDI. However, of the $39 billion investments abroad by SWFs over the past two decades, as much as $31 billion was committed in the past three years. Their recent activities have been driven by the rapid build-up of reserves generated by export surpluses, changes in global economic fundamentals and new investment opportunities in structurally weakened financial firms.

**Figure 2. FDI flows[a] by sovereign wealth funds, 1987–2007**




*Source*: UNCTAD, *World Investment Report 2008: Transnational Corporations and the Infrastructure Challenge*.

[a] Cross-border M&As only; greenfield investments by SWFs are assumed to be extremely limited.

Almost 75% of the FDI by SWFs has been in developed countries, with investments in Africa and Latin America very limited so far. Their investments have been concentrated in services, mainly business services.

Investments by SWFs in the banking industry in 2006-2007 were generally welcomed, owing to their stabilizing effect on financial markets. However, they also prompted some negative public sentiment, with calls to impose regulatory restrictions on investments by these funds, notably on national security grounds. International institutions, such as the International Monetary Fund (IMF) and the Organisation for Economic Co-operation and Development (OECD), are in the process of establishing principles and guidelines relating to FDI by SWFs.

## *Most national policy changes continued to encourage FDI, though less favourable measures became more frequent.*

Despite growing concerns and political debate over rising protectionism, the overall policy trend remains one of greater openness to FDI. UNCTAD's annual survey of changes in national laws and regulations that may influence the entry and operations of TNCs suggests that policymakers are continuing in their efforts to make the investment climate more attractive. In 2007, of the almost 100 policy changes identified by UNCTAD as having a potential bearing on FDI, 74 aimed at making the

host country environment more favourable to FDI (table 5). However, the proportion of changes that were less favourable to FDI has been increasing over the past few years.

**Table 5. National regulatory changes, 1992–2007**

| Item | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of countries that introduced change | 43 | 56 | 49 | 63 | 66 | 76 | 60 | 65 | 70 | 71 | 72 | 82 | 103 | 92 | 91 | 58 |
| Number of regulatory changes | 77 | 100 | 110 | 112 | 114 | 150 | 145 | 139 | 150 | 207 | 246 | 242 | 270 | 203 | 177 | 98 |
| More favourable | 77 | 99 | 108 | 106 | 98 | 134 | 136 | 130 | 147 | 193 | 234 | 218 | 234 | 162 | 142 | 74 |
| Less favourable | 0 | 1 | 2 | 6 | 16 | 16 | 9 | 9 | 3 | 14 | 12 | 24 | 36 | 41 | 35 | 24 |

*Source:* UNCTAD database on national laws and regulations.

As in 2006, most of the new restrictions introduced were concentrated in the extractive industries, particularly in Latin America (e.g. Bolivia, Ecuador and the Bolivarian Republic of Venezuela), but they were also apparent in other countries as well. Several governments, including those of the United States and the Russian Federation, adopted stricter regulations with regard to investments in projects that have potential implications for national security. Government concerns also appear to be directed towards investments in certain infrastructure areas and those undertaken by State-owned entities.

The number of international investment agreements (IIAs) continued to grow, reaching a total of almost 5,600 at the end of 2007. There were 2,608 bilateral investment treaties (BITs), 2,730 double taxation treaties (DTTs) and 254 free trade agreements (FTAs) and economic cooperation arrangements containing investment provisions. The shift in treaty-making activity from BITs towards FTAs continued, as did the trend towards renegotiation of existing BITs.

## *The global financial crisis had a limited impact on FDI flows in 2007, but will begin to bite in 2008.*

The sub-prime mortgage crisis that erupted in the United States in 2007 has affected financial markets and created liquidity problems in many countries, leading to higher costs of credit. However, both micro- and macroeconomic impacts affecting the capacity of firms to invest abroad appear to have been relatively limited so far. As TNCs in most industries had ample liquidity to finance their investments, reflected in high corporate profits, the impact was smaller than expected. At the macroeconomic level, developed-country economies could be affected both by the slowdown of the United States economy and the impact of the turmoil in the financial markets on liquidity. As a result, both inflows to and outflows from these countries may decline. On the other hand, relatively resilient economic growth in developing economies may counteract this risk.

In addition to the credit crunch in the United States, the global economy was also affected by the significant depreciation of the dollar. While it is difficult to isolate the effects of exchange rate changes from other determinants of FDI flows, the sharp weakening of the dollar helped to stimulate FDI to the United States. European FDI to

the United States was spurred by the increased relative wealth of European investors and reduced investment costs in the United States. Moreover, companies exporting to the United States have suffered from the exchange rate changes, which have induced them to expand local production in the United States. This is illustrated by changes in the strategy of several European TNCs, particularly carmakers, that plan to build new or expand existing production facilities in that country.

The slowdown in the world economy and the financial turmoil have led to a liquidity crisis in money and debt markets in many developed countries. As a result, M&A activity has decelerated markedly. In the first half of 2008, the value of such transactions was 29% lower than that in the second half of 2007. Corporate profits and syndicated bank loans are also declining. Based on available data, estimated annualized FDI flows for the whole of 2008 are expected to be about $1,600 billion, representing a 10% decline from 2007. Meanwhile, FDI flows to developing countries are likely to be less affected. UNCTAD's *World Investment Prospects Survey, 2008–2010*, while also suggesting a rising trend in the medium term, points to a lower level of optimism than was expressed in the previous survey, and to more caution in TNCs' investment expenditure plans than in 2007.

### *In Africa, high commodity prices and rising profitability attracted FDI.*

In Africa, FDI inflows grew to $53 billion in 2007 – a new record. Booming commodity markets, rising profitability of investments – the highest among developing regions in 2006-2007 – and improved policy environments fuelled inflows. LDCs in Africa also registered another year of growth in their FDI inflows. A large proportion of the FDI projects launched in the region in 2007 were linked to the extraction of natural resources. The commodity price boom also helped Africa to maintain a relatively high level of outward FDI, which amounted to $6 billion in 2007.

Despite higher inflows, Africa's share in global FDI remained at about 3%. TNCs from the United States and Europe were the main investors in the region, followed by African investors, particularly from South Africa. TNCs from Asia concentrated mainly on oil and gas extraction and infrastructure. Prospects for increased FDI inflows in 2008 are promising in light of the continuing high prices of commodities, large projects already announced for that year and forthcoming payments from previously concluded cross-border M&As. This will signify a fourth consecutive year of FDI growth. The UNCTAD survey shows that almost all TNCs have maintained or even increased their current levels of investment in Africa.

### *In South, East and South-East Asia and Oceania, both inward and outward FDI flows rose to their highest levels ever.*

FDI flows to South, East and South-East Asia and Oceania were also higher than ever before, reaching $249 billion in 2007. Most subregions and economies, except Oceania, received higher inflows. A combination of favourable business perceptions, progress towards further regional economic integration, improved investment environments and country-specific factors contributed to the region's performance. China and Hong Kong (China) remained the two top destinations within

the region as well as among all developing economies. Meanwhile, India – the largest recipient in South Asia – and most member countries of the Association of Southeast Asian Nations (ASEAN) also attracted larger inflows, as did post-conflict countries and Asian LDCs, such as Afghanistan, Cambodia, Sri Lanka and Timor-Leste.

Overall, prospects for new FDI to the region remain very promising. Sustained economic growth, demographic changes, favourable business sentiments and new investment opportunities were among the main factors contributing to the region's good performance in 2007, and they should continue to attract FDI in the near future.

FDI outflows from South, East and South-East Asia also reached a new high, amounting to $150 billion, reflecting the growing importance of developing countries as outward investors. Intra- and inter-regional flows are a particularly important feature. But firms are investing in developed countries as well, not least through cross-border M&As. SWFs from the region have emerged as significant investors, contributing to the region's rapidly growing outward FDI stock: this jumped from $1.1 trillion in 2006 to $1.6 trillion in 2007.

### *West Asia also saw record flows in both directions...*

FDI in West Asia rose by 12% to $71 billion, marking a new record and a fifth consecutive year of growth. More than four fifths of the inflows were concentrated in three countries: Saudi Arabia, Turkey and the United Arab Emirates, in that order. A growing number of energy and construction projects, as well as a notable improvement in the business environment in 2007, attracted FDI into members of the Gulf Cooperation Council (GCC). For example, Qatar experienced a significant rise in inflows – more than seven times higher than in 2006.

FDI outflows from the region in 2007 increased for the fourth consecutive year, to $44 billion – nearly six times its level in 2004. The GCC countries (Kuwait, Saudi Arabia, the United Arab Emirates, Qatar, Bahrain and Oman, in that order) accounted for 94% of these outflows, reflecting in part their desire to diversify away from oil and gas production through investments by SWFs. Intraregional FDI was significant, particularly from oil-rich countries, as confirmed by a growing number of greenfield projects and the increasing value of cross-border M&As.

FDI inflows into West Asia are expected to rise in 2008, as countries in the region have remained largely unaffected by the sub-prime mortgage crisis, and a significant number of intraregional investment projects are in the pipeline.

### *... while the surge of FDI into Latin America and the Caribbean was mainly driven by the demand for natural resources.*

Latin America and the Caribbean saw inflows rise by 36% to a historic high of $126 billion. The increase was the highest in South America (66%), where most of the $72 billion worth of inflows targeted the extractive industries and natural-resource-based manufacturing. Inflows to countries in Central America and the Caribbean (excluding offshore financial centres) increased by 30% to $34 billion, despite the economic slowdown in the United States. This resilience was partly explained by

the dynamism of FDI in mining, steel and banking, which are not oriented primarily towards the United States market.

FDI outflows from the region fell by 17% to $52 billion, mainly reflecting a return to more "normal" levels of outward investment from Brazil. Latin American TNCs, mainly from Mexico and Brazil, continued to internationalize, competing for leadership in such industries as oil and gas, metal mining, cement, steel, and food and beverages. In addition, many new Latin American companies began emerging in new sectors such as software, petrochemicals and biofuels.

In the extractive industries, in which FDI increased as a result of the high commodity prices, the picture differed between oil and gas and metal mining. In metal mining, the scope for inward FDI is greater, as there are no major State-owned companies in the region, except Codelco in Chile. In oil and gas, by contrast, the dominant position, or even exclusive presence, of State-owned oil and gas companies limits the opportunities for foreign investors. This situation was accentuated in 2007, as a number of countries, including Bolivia, the Bolivarian Republic of Venezuela and Ecuador, adopted policy changes to increase taxation and further restrict or prohibit foreign investment in oil and gas.

FDI to and from Latin America and the Caribbean is expected to increase further in 2008. Inflows would be driven mainly by South America, where high commodity prices and strong subregional economic growth should continue to boost TNCs' profits. However, the level of future inflows into Central America and the Caribbean is uncertain, as the slowdown of the United States economy and a weak dollar could adversely affect their export-oriented manufacturing activities. Outflows are expected to be boosted by TNCs in Brazil and Mexico, which have already announced ambitious investment plans for 2008.

### *FDI to and from South-East Europe and the Commonwealth of Independent States maintained an upward trend and set new records.*

As in most other regions, FDI flows to and from South-East Europe and the CIS reached unprecedentedly high levels. Inward FDI rose for a seventh consecutive year, to reach $86 billion – 50% more than in 2006. In the CIS, these inflows were mainly attracted to fast growing consumer markets and natural resources, while those to South-East Europe were associated with privatizations. Inward FDI in the Russian Federation increased by 62%, to $52 billion.

Outward FDI from South-East Europe and the CIS amounted to $51 billion, more than double its 2006 level. FDI from the Russian Federation – the main source country in the region – soared to $46 billion in 2007. Russian TNCs have extended their reach to Africa with the aim of increasing their raw material supplies and their access to strategic commodities. These are needed to support their efforts to increase their downstream presence in the energy industry and their value-added production activities in the metals industry of developed countries.

Whereas most of the national policy changes of the transition economies in 2007 were in the direction of greater openness to FDI, some CIS countries continued to introduce restrictions in the extractive industries and some other strategic industries.

The Russian Federation approved the long-discussed Strategic Sector Law, which specifies industries in which foreign investors are allowed only minority participation. In Kazakhstan, a newly approved natural resources law allows the Government to change existing contracts unilaterally if they adversely affect the country's economic interests in the oil, metal and mineral industries. Nevertheless, FDI flows are expected to be buoyant in these two countries as well as Ukraine.

### *In developed countries FDI inflows and outflows appear to have peaked.*

Despite concerns over the economic uncertainty faced by some developed economies, FDI inflows to developed countries as a whole surged by 33% in 2007, to reach $1,248 – yet another record. The rise was mainly driven by cross-border M&As, but also by reinvested earnings as a result of high profitability of foreign affiliates. The United States retained its position as the world's largest FDI recipient country. The restructuring and concentration process in the enlarged common market of the EU countries led to a renewed wave of cross-border acquisitions. Large FDI flows to the United Kingdom, France, the Netherlands and Spain drove overall FDI inflows to the EU to $804 billion – a 43% increase. Japan's FDI inflows grew strongly for the first time since the end of the 1990s.

Developed countries maintained their position as the largest net outward investors, as outflows soared to a record $1,692 billion – $445 billion. The largest outward investors – the United States, the United Kingdom, France, Germany and Spain (in that order) – accounted for 64% of the total outward FDI of the group.

The policy environment for FDI in a number of developed countries continues to be one of greater openness, with some exceptions. There are, however, growing concerns over the possible negative effects of cross-border investments by SWFs, as well as private equity and hedge funds.

FDI to and from developed countries is expected to fall because of the dampening effects of the financial market crisis, combined with weaker economic growth in these economies. The value of cross-border M&As in developed countries fell considerably in the first half of 2008, compared with the second half of 2007. In UNCTAD's *World Investment Prospects Survey 2008–2010*, 39% of the responding TNCs anticipated an increase in FDI inflows into developed countries compared with more than 50% in last year's survey.

# TRANSNATIONAL CORPORATIONS AND THE INFRASTRUCTURE CHALLENGE

## *There are huge unmet investment needs for infrastructure in developing countries.*

The provision of good quality infrastructure is a prerequisite for economic and social development. Indeed, it is considered one of the main preconditions for enabling developing countries to accelerate or sustain the pace of their development and achieve the Millennium Development Goals (MDGs) set by the United Nations.

Moreover, the future investment needs of developing countries in infrastructure far exceed the amounts being invested by governments, the private sector and other stakeholders, resulting in a significant financing gap. On average, according to World Bank estimates, developing countries currently invest annually 3–4% of their GDP in infrastructure; yet they would need to invest an estimated 7–9% to achieve broader economic growth and poverty reduction goals.

Partly because of the scale of investment required in infrastructure, there has been a fundamental change in the role of the State around the world. Governments have opened infrastructure industries and services up to much greater involvement by the private sector – including TNCs. After the Second World War, and until the 1980s, infrastructure industries were by and large the purview of the State, sometimes through corporatized forms, such as State-owned enterprises (SOEs). Since then they have been gradually liberalized, though the pace and degree have varied by industry and country. As a result, the relationship between the State and the private sector has evolved, with the State increasingly assuming the role of regulator of activities performed by private, and often foreign, companies. This new relationship will continue to change in response to technological progress, growing experience with private sector involvement and shifting political priorities.

In addition to developing-country TNCs in infrastructure (mentioned below), "new players" in infrastructure have emerged, including a heterogeneous set of institutions belonging to two broad groups: private equity investors, and State-owned or government-linked entities such as sovereign wealth funds.

*WIR08* focuses on economic infrastructure, including electricity, telecommunications, water and sewage, airports, roads, railways and seaports (the last four collectively referred to as transport). Analyses of TNC activities, development effects and policy recommendations need to take into account the main features of these industries. First, infrastructure investments are typically very capital-intensive and complex. Second, infrastructure services often involve (physical) networks, and are frequently oligopolistic or monopolistic in nature. Third, many societies regard access to infrastructure services as a social and political issue. Such services may be considered public goods, in the sense that they should be available to all users, and some, such as water supply, are considered a human right. Fourth, infrastructure industries are a major determinant of the competitiveness of an economy as a whole, and the quality of infrastructure is an important determinant of FDI. Fifth, infrastructure is key to economic development and integration into the world economy.

## TNC participation in infrastructure has increased substantially, including in developing and transition economies.

Infrastructure industries account for a rapidly expanding share of the stock of inward FDI. Over the period 1990–2006, the value of FDI in infrastructure worldwide increased 31-fold, to $786 billion, and that in developing countries increased 29-fold, to an estimated $199 billion. Throughout the period it continued to grow in most infrastructure industries: the most significantly in electricity and telecommunications, and much less in transport and water. As a whole, the share of infrastructure in total FDI stock globally currently hovers at close to 10%, compared to only 2% in 1990.

Another measure, foreign investment commitments in private participation in infrastructure (PPI) projects (which include FDI, but also other investments that are an element of concessions), also indicates that TNCs have invested significantly in developing countries. During the period 1996–2006, such commitments amounted to about $246 billion, with a concentration in Latin America and the Caribbean between 1996 and 2000 (the region accounted for 67% of commitments); but since the turn of the century TNCs' share participation in PPI projects has grown relatively faster in Africa and Asia.

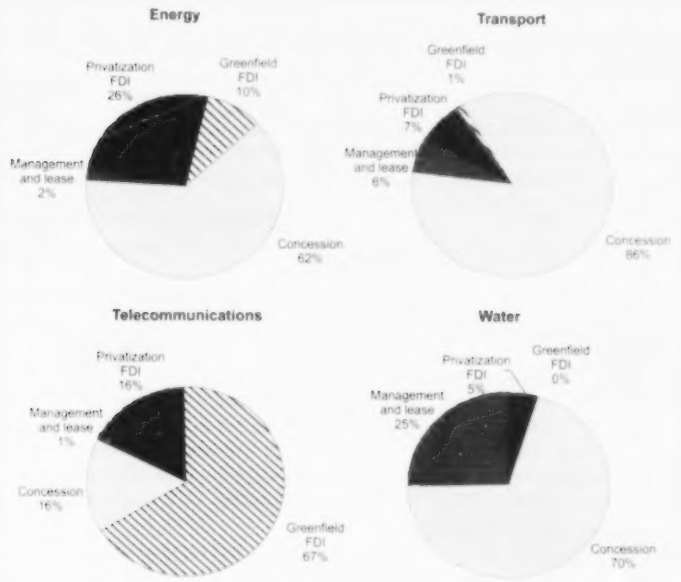
The *group of LDCs* has remained by and large marginalized in the process of globalization of infrastructure investment, accounting for about 2% of the stock of infrastructure FDI in developing countries in 2006. Their share in the foreign investment commitments in infrastructure industries of developing economies in the period 1996–2006 (of $246 billion) was a little over 5%.

The form of TNC involvement varies considerably by industry. Telecommunications is the only infrastructure industry in which FDI has been the dominant form of TNC entry in developing and transition economies (figure 3). In electricity, concessions were the most frequent modes of entry (62% of the cases), followed by privatizations and greenfield projects (36%) (figure 3). Concessions were also the predominant form of foreign participation in transport infrastructure (more than 80%), and in water (70% of the projects). In addition, the water industry used management and lease contracts relatively frequently (25%) (figure 3).

## Developing countries have significant infrastructure TNCs and are becoming prominent investors in other developing countries.

Although developed-country TNCs still dominate in infrastructure industries internationally, there has been a marked rise in involvement by developing-country TNCs. In some industries, such as telecommunications, they have emerged as major players, and in others, such as transport, they have even become world leaders (table 6). Of the top 100 infrastructure TNCs in the world in 2006, 14 were from the United States, 10 from Spain, and 8 each from France and the United Kingdom. However, of the top 100 infrastructure TNCs, no less than 22 were headquartered in a developing

**Figure 3. Main legal forms of foreign commitments in the infrastructure industries of developing and transition economies, by industry, 1996–2006**
(Based on the number of projects; in per cent)




*Source*: UNCTAD, *World Investment Report 2008: Transnational Corporations and the Infrastructure Challenge*, figure III.6.

*Note*: Data refer to investment commitments only in projects with private sector participation. Some of these projects include investment commitments from the public sector. Projects that are solely public sector funded are excluded.

or transition economy. The largest number of such firms was from Hong Kong (China) with 5 firms, and Malaysia and Singapore with 3 each.

To varying degrees, TNCs from the South are playing a more prominent role in the infrastructure industries of developing countries, though they do not invest as much as their developed-country counterparts. In *Asia and Oceania*, TNC involvement from other developing economies, especially intraregional investment, is particularly pronounced. In 1996–2006 almost half of foreign investment commitments in infrastructure in Asia and Oceania originated in developing countries, and in two industries (telecommunications and transport), TNCs from the South accounted for the largest share of foreign commitments. In *Africa*, developing-country investors have been dominant in telecommunications (58% of all commitments), but are less

**Table 6. Largest TNCs in infrastructure industries, ranked by foreign assets, 2006**
(Companies highlighted are based in developing or transition economies)

| Rank | Electricity | Telecommu-nications | Transport | Water and sewage | Natural gas | More than one infrastructure industry |
|---|---|---|---|---|---|---|
| 1 | Electricité de France | Vodafone Group | Grupo Ferrovial | Veolia Environnement | Gaz de France | Suez |
| 2 | E.ON | Telefónica | Abertis | Grupo Agbar | Spectra Energy Corp | **Hutchison Whampoa** |
| 3 | Endesa | Deutsche Telekom | AP Moller-Maersk | Waste Management Inc | Centrica | RWE Group |
| 4 | Vattenfall | France Télécom | **DP World** | Shanks Group | Gas Natural | Bouygues |
| 5 | National Grid | Vivendi Inc | **China Ocean Shipping** | Waste Services Inc | Transcanada Corp. | **YTL Power** |
| 6 | AES Corp | Liberty Global Inc | Canadian National Railways Co | Stericycle Inc | Enbridge Inc | Babcock & Brown Infrastructure |
| 7 | Fortum | TeliaSonera | Skanska | **Hyflux Limited** | Sempra Energy | **Enka Insaat ve Sanayi** |
| 8 | Duke Energy Corp | **SingTel** | **PSA International** | Clean Harbors Inc | El Paso Corp | **NWS Holdings** |
| 9 | EDP Energias de Portugal | Telenor | Hochtief | | Hunting Plc | |
| 10 | International Power Plc | Nortel Networks | Vinci | | Williams Companies | |
| 11 | **CLP Holdings** | KPN | Macquarie Airports | | **Hong Kong & China Gas Co.** | |
| 12 | Iberdrola | BT Group | Deutsche Bahn | | Distrigaz D | |
| 13 | Unión Fenosa | Verizon Communications | **Orient Overseas International** | | Canadian Utilities Ltd | |
| 14 | PPL Corp | SES | Grupo ACS | | Iwatani International Corp. | |
| 15 | Atel - Aare Tessin | Telecom Italia | Obrascon Huarte Lain | | | |
| 16 | Public Service Enterprise Group | **América Móvil** | Kansas City Southern | | | |
| 17 | **Keppel Corp.** | **Mobile Telecommuni-cations Co.** | Canadian Pacific Railway | | | |
| 18 | Cofide-CIR Group | TDC A/S | First Group | | | |
| 19 | Edison International | Portugal Telecom | BBA Aviation | | | |
| 20 | Enel | Tele2 | **China Communications Construction Co.** | | | |

*Source:* UNCTAD, *World Investment Report 2008: Transnational Corporations and the Infrastructure Challenge*, table III.11.

important in other infrastructure industries. On average, developing-country firms account for 40% of all commitments in Africa. Finally, in *Latin America and the Caribbean* the role of developing-country investors has been more limited (16% of all commitments). (Note that "all commitments" cover those made by the private sector and by the State or SOEs where they have a share in PPI projects. However, investments in infrastructure made *solely* by the State or SOEs are excluded.)

## *TNCs in infrastructure derive their competitive advantages from a variety of sources and invest abroad mostly to access markets.*

Competitive or ownership advantages of infrastructure TNCs are primarily related to specialist expertise or capabilities, such as network design and operation.

engineering skills, environmental know-how, project management capabilities and tacit, hands-on skills. Specialized business models and financial prowess are important in some industries and segments, such as telecommunications.

The majority of infrastructure TNCs invest abroad in order to access the markets of host economies. They aim at benefiting from market opportunities arising from a number of measures, including liberalization and deregulation in host economies, invitations to tender for infrastructure projects, and the opening up of host countries to foreign acquisition of local firms (including privatization and acquisition of private firms). Additional motivations for investment can include following clients in the infrastructure business, searching for economies of scale and taking advantage of regional growth opportunities. The primacy of the host country market as a motive for infrastructure TNC involvement in developing economies places LDCs at a disadvantage in attracting their investment, as they have small markets in general and in infrastructure industries more specifically.

### *Mobilization of financial resources for infrastructure investment by TNCs is rising, but a vast gap remains.*

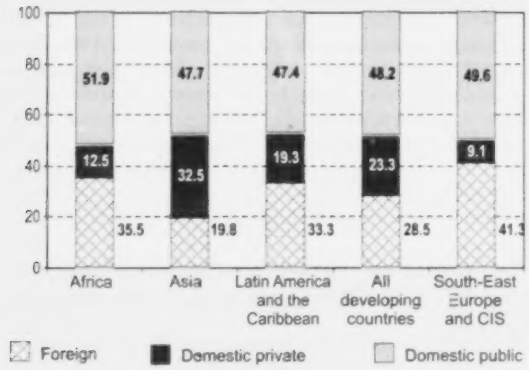
Financial constraints faced by governments were a major reason for an increasing number of developing countries to open up to FDI and TNC participation in infrastructure industries in the 1990s. Indeed, TNC participation in infrastructure in developing countries has resulted in the inflow of substantial financial resources. As mentioned earlier, the stock of infrastructure FDI in developing countries, an indicator of the extent to which TNC participation mobilizes financial resources, surged after 1990.

In addition, the $246 billion foreign investment commitments in infrastructure in developing countries in the period 1996–2006 represented an average of 29% of all PPI investment commitments. This reflects the importance of TNCs contribution to these industries in developing countries, with the highest share in Africa (36%) (figure 4).

Despite significant levels of TNC investment in developing-country infrastructure, more of it is required to bridge the vast financing gap: there is need for substantial amounts of additional investment, irrespective of source. For instance, in Africa, total TNC investment commitments in infrastructure during the *decade* spanning 1996–2006 were $45 billion – an amount (even if fully realized) that is barely equivalent to the region's current *annual* infrastructure investment needs of $40 billion.

Across much of Latin America, in a similar vein, investment in infrastructure by foreign companies in the 1990s was connected with a decline in public investment in the sector. In expectation of a large-scale increase in private sector investment, many governments in the region cut back on public expenditure in infrastructure, but the increase in investment by TNCs (and the domestic private sector) did not fully compensate for this decline. An important lesson from this experience is that TNC participation should not be expected to meet a country's entire investment needs in infrastructure industries; rather, it should be viewed as an important supplement and complement to domestic investments.

**Figure 4. Shares of foreign investors, and domestic private and public investors in the investment commitments of the infrastructure industries of developing and transition economies, by region, 1996–2006**
(Per cent)




*Source:* UNCTAD, *World Investment Report 2008: Transnational Corporations and the Infrastructure Challenge*, figure III.1.

*Note:* Data refer to investment commitments only in projects with private sector participation. Some of these projects include investment commitments from the public sector. Projects that are solely public sector funded are excluded.

## *TNC investment in developing-country infrastructure affects industry performance ...*

TNCs in infrastructure bring both hard technology (e.g. specialist equipment for water purification) and soft technology (e.g. organizational and managerial practices) to their operations in host countries. As regards hard technology, in telecommunications for instance, market entry by international operators from both developing and developed countries has contributed to lowering the threshold of access to and use of information and communication technologies in developing countries. TNCs also transfer soft technology to host country operations, for example by re-engineering operational processes, improving procurement and subcontracting practices, and enhancing client records and collection methods. Overall, studies show that in a number of cases the introduction of hard and soft technology by foreign affiliates has helped enhance productivity in services provision, as well as its reliability and quality. However context matters, and performance gains as a consequence of TNC (and more generally private) involvement depend very much on a well-defined regulatory environment.

The industry-wide impact of technology transfer by TNCs also depends on the diffusion of technology to other firms in the industry through a number of routes

of transmission, including joint ventures, mobility of personnel and demonstration effects. For instance, in China's electricity generation industry, TNC participation in large joint-venture projects has involved systematic and comprehensive project management cooperation between foreign investors and their Chinese counterparts. This has enabled the latter to enhance their expertise and efficiency. For the effective diffusion of technology from infrastructure TNCs, the existence of capable domestic enterprises is essential.

The higher the contestability of an infrastructure industry, the more likely it is that TNC participation will contribute to enhanced efficiency through increased competition. For example, in many countries, a competitive market structure has been established in telecommunications as a consequence of technological change and industry reforms. In Uganda, for instance, competition between the national provider and TNCs led to price reductions and a rapid increase in penetration of mobile telephony. Cross-country studies have shown the complementarities between privatization and competition: competition increases the gains from privatization, and vice versa.

On the other hand, in water supply, which is an example of an industry that is still essentially a natural monopoly, the entry of TNCs can result in State monopolies being turned into private, foreign-owned monopolies. This limits competition and thus the scope for efficiency enhancement. In other services, while the entry of TNCs can increase competition and thus efficiency, it may also pre-empt the entry of domestic players or crowd out existing ones. In electricity and telecommunications – both relatively contestable industries – the experience of a number of developing countries indicates that infrastructure TNCs in some cases can be associated with anti-competitive behaviour.

In some developing countries where domestic capabilities exist, local private participants can enhance their competitiveness and efficiency by collaborating with TNCs in a variety of ways. For example, partial privatization with minority ownership by TNCs has been implemented by developing countries such as Morocco in telecommunications, with favourable results for competition. As an alternative to TNC involvement, some developing countries have also been able to improve the performance of public utilities through corporatization reforms, without direct TNC participation. However, successful cases are mainly in relatively high-income or large developing economies.

### ...with implications for the provision of infrastructure services and universal access.

The participation of TNCs has generally increased the supply and improved the quality of infrastructure services in host countries, but their impact on prices has varied. In some instances this has caused concern over services being priced beyond the reach of the poor. In particular, the *affordability* of services is jointly determined by the price of services and the disposable income of consumers in an economy. The impact of TNC participation on access to services can thus differ among segments of a society: improvements in industry performance do not necessarily translate into increased

availability and affordability of services for all members of a society, especially the poor and people living in rural, remote and economically deprived areas.

Improvements in supply, coverage of services, price and access as a result of TNC participation in developing countries are more pronounced in *telecommunications* than in any other infrastructure industry, especially in mobile telephony. Many developing countries have experienced a "mobile revolution": new business models introduced by TNCs have enabled the expansion of mobile services into low-income segments. TNC entry into the *transport* industry of developing countries is far more varied than in other areas. International terminal operators, for instance, have considerably improved the quality of services in major ports, and thereby increased developing-country connectivity to the global economy.

In contrast to telecommunications, and to a lesser extent transport, the impact in electricity and water has been mixed. The impact of TNC participation on prices, and thus access to electricity and water, depends on political, social and contractual issues, as well as productivity and efficiency gains. In the absence of government subsidies to users, additions to supply capacity, productivity and efficiency improvements may be insufficient to maintain low prices while covering costs. Prices can continue to be subsidized after entry by the private sector, although countries sometimes raise tariffs both to attract companies and to reduce subsidies.

Evidence from a number of developing countries suggests that greater private sector investment – often with TNC involvement – has in many cases led to increased supply capacity and network connections in *electricity*, and thereby to steady improvements in the reliability and quality of service in the industry. Given the many factors involved, electricity prices have sometimes fallen after TNC entry, but overall there has been no definite trend in prices, up or down. The impact of TNC participation on users' access to *water* has been disappointing in many instances, though there is some evidence that well-designed schemes for TNC participation have led to significant service expansion. Partly because TNC participation has sometimes not met expectations of improved access, there have been cancellations of water concessions in countries such as Argentina, Bolivia and the Philippines.

In summary, in the telecommunications and transport industries, the TNCs have contributed substantially to making services more affordable and accessible. For those services that are considered essential, such as drinking water, if the efficiency improvements achieved by TNCs *cannot* allow them to maintain prices at low levels while covering costs, and the government does not provide subsidies to users, access for the poor is affected. Government policies are critical for all infrastructure industries, but, from a social perspective, more so in the case of electricity and water.

### *Leveraging TNC participation is a complex policy challenge.*

Host countries need to consider when it is appropriate to draw TNCs into the development and management of infrastructure. They also need to find ways of ensuring that projects with TNC involvement lead to the expected development effects. This is a complex policy challenge.

As policy priorities and options vary between countries, so too does the optimal mix of public and private (including TNC) investment. Designing and implementing

appropriate policies to harness the potential role of TNCs in infrastructure require adequate skills and capabilities. Governments need to prioritize among competing demands for different projects, establish clear and realistic objectives for the projects chosen, and integrate them into broader development strategies. This means that government agencies have to possess the necessary institutional capacity and skills to guide, negotiate, regulate and monitor the projects. This applies not only at the central level, but also at the provincial and municipal levels.

While many developing countries seek foreign investment to develop their physical infrastructure, convincing foreign companies to invest has become even more challenging. Growing demand in the developed world and in large emerging economies is leading potential investors to expect higher returns for a given level of risk. This poses a particular problem where large-scale capital investments are needed up-front, where cost-recovery is difficult to achieve and where social concerns are considerable. Furthermore, project failures and multiple investment disputes have contributed to a more cautious attitude towards infrastructure projects among overseas investors.

### *Countries seek greater TNC involvement in infrastructure, but openness varies by industry.*

The trend towards opening up has been more widespread among developed countries and the relatively advanced developing and transition economies. While the nature of liberalization has varied, all groups of countries are now more welcoming to TNC activities in infrastructure than they were two decades ago.

However, there are significant variations by industry. Openness is the highest in mobile telecommunications, and the lowest in water. Countries are generally more open to TNC involvement in industry segments that are relatively easy to unbundle and expose to competition. Openness also appears to be greater in countries with more developed institutional and regulatory capabilities. At the same time, some governments are becoming more careful about allowing foreign companies to take control of certain infrastructure, including power generation and distribution, port operations and telecommunications. New restrictions have been proposed based on national security or public interest concerns.

These concerns notwithstanding, many countries have moved beyond the removal of barriers to TNC involvement, and are actively promoting it in some areas of infrastructure. Many investment promotion agencies (IPAs) are targeting infrastructure industries. In a survey conducted by UNCTAD and the World Association of Investment Promotion Agencies, about 70% of the IPA respondents stated that they were actively seeking such investment, while only 24% were not. Almost three quarters of the IPAs stated that infrastructure is a more important priority than it was five years ago.

Confirming the broad patterns of openness to TNC involvement, the infrastructure industries most often targeted by IPAs are electricity generation, Internet services and airports. By contrast, the lowest number of IPAs targeted electricity distribution and transmission (table 7). Judging from the patterns of investment in LDCs, there may be a case for low-income countries to target TNCs from other developing countries, especially in transport infrastructure.

**Table 7. Share of IPAs that promote FDI into specific infrastructure industries, by region, 2008**
(Percentage of responding IPAs)

| Infrastructure industry | All countries | Developed countries | Developing countries | Africa | Asia | Latin America and the Caribbean | SEE and CIS |
|---|---|---|---|---|---|---|---|
| Transport | | | | | | | |
| Roads | 31 | 5 | 42 | 43 | 46 | 38 | 48 |
| Seaports | 37 | 30 | 42 | 50 | 31 | 44 | 29 |
| Airports | 41 | 35 | 40 | 57 | 23 | 38 | 71 |
| Railways | 24 | 15 | 28 | 50 | 23 | 13 | 29 |
| Electricity | | | | | | | |
| Generation | 49 | 30 | 56 | 79 | 46 | 44 | 57 |
| Transmission | 19 | 0 | 26 | 36 | 23 | 19 | 29 |
| Distribution | 17 | 5 | 23 | 36 | 23 | 13 | 14 |
| Telecommunications | | | | | | | |
| Fixed | 29 | 20 | 30 | 50 | 23 | 19 | 43 |
| Mobile | 40 | 40 | 40 | 57 | 38 | 25 | 43 |
| Internet services | 44 | 45 | 42 | 71 | 31 | 25 | 57 |
| Water and sanitation | | | | | | | |
| Water supply | 33 | 26 | 33 | 43 | 23 | 31 | 57 |
| Sanitation | 26 | 15 | 28 | 29 | 23 | 31 | 43 |
| *Number of responses* | *70* | *20* | *43* | *14* | *13* | *16* | *7* |

*Source:* UNCTAD, *World Investment Report 2008: Transnational Corporations and the Infrastructure Challenge*, table V.3.

## *Securing development gains requires an appropriate governance framework and strong government capabilities.*

Without an adequate institutional and regulatory framework, the risk increases that countries will lose out by opening up to TNC participation. Moreover, once a country liberalizes, it is often hard to reverse the process. This is why the sequencing of reforms is important. Ideally, competitive restructuring, the introduction of regulations and the establishment of an independent regulatory agency should precede steps towards opening up. Such a sequence helps clarify the rules of the game for potential investors and makes governments better prepared for engaging in a specific project. However, in reality, opening up to foreign investment has often preceded comprehensive reform, with less positive outcomes as a result. Until credible regulatory bodies can be established, developing countries are likely to be better off keeping their utilities in the public sector.

Inviting TNCs to deliver infrastructure services tends to place more, rather than less, responsibility on public officials. Infrastructure investments typically require the negotiation of contracts between the host country and the foreign investor(s). Contracts provide for a tailor-made agreement that responds to the particular requirements of each project and to the intentions of the contracting parties. It is therefore important for countries to develop the expertise to determine the desirable level and forms of TNC involvement, to negotiate and monitor the implementation of projects.

Due to asymmetries of information and experience between a TNC and a host country government, it is generally difficult for public sector staff to match the resources of the private sector when engaging in contract negotiations. Major TNCs tend to make use of international law firms and other experts specializing in project financing transactions, but this is not always possible for developing countries.

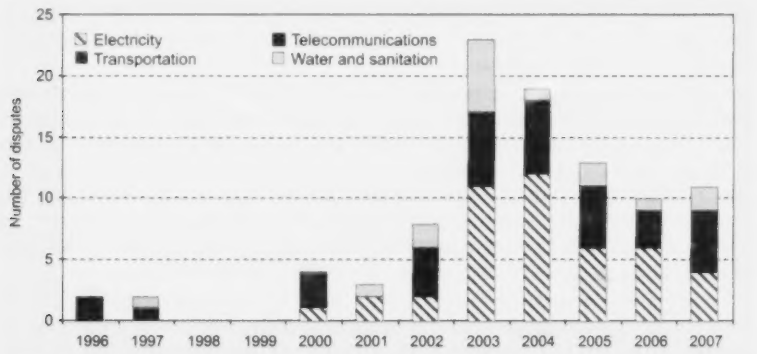
If countries with limited experience decide to involve TNCs in infrastructure projects, it may be advisable for them to start on a small scale rather than adopting a major programme across industries. It may also be useful for them initially to concentrate on less contentious segments of an industry.

## *Many investment disputes are related to infrastructure.*

An issue that has attracted increased attention in recent years is the rise of investment disputes related to infrastructure. At the end of 2007, some 95 disputes (or one third of all known treaty-based investor-State disputes) were related to electricity, transportation, telecommunications and water and sanitation (figure 5). The disputes have provoked debate over the implications of international investment agreements (IIAs), and especially BITs.

Some observers are concerned that improved protection and certainty for foreign investors has come at the cost of too much reduction in the government's regulatory flexibility. They argue that the possibility of investor-State arbitration may have a dampening effect on the ability of the States to adopt public welfare regulations and other regulations in their citizens' interests. Others question whether BITs have been, or ever will be, able to provide the protection they were originally intended to offer investors. TNCs that have seen their cases dismissed or received far lower

**Figure 5. Number of known infrastructure-related investment disputes, 1996–2007**
(New cases per year)




*Source*: UNCTAD, *World Investment Report 2008: Transnational Corporations and the Infrastructure Challenge*, figure V.3.

compensation than what they had claimed will have found that the protection offered through the BITs was less comprehensive than expected.

A review of arbitration decisions shows that less than half of the awards rendered favoured the claimant, and that damages awarded were considerably smaller than the total claims made by investors. The fact that more than 90 known disputes concerned infrastructure shows that concluding IIAs (and the coexistence of IIAs and State contracts) can have significant implications for host States. At the same time, the number of disputes should be seen in the light of the several thousands of IIAs, and a huge number of investment projects in infrastructure. In addition, if renegotiations of contracts are successful, they do not reach the stage of dispute and arbitration. The complexity of related issues, together with the dynamic evolution of the IIA universe and the international case law, underline the importance of capacity-building to ensure that developing-country governments understand the implications of concluding IIAs. They also need to be better equipped to handle potential investment disputes.

### *Greater commitments from the international community are needed...*

It is important to consider the potential role of home countries and the international community in facilitating more foreign investments into countries that seek such inflows. This is particularly relevant from the perspective of low-income countries, which lack domestic capabilities and have generally failed to attract significant TNC involvement in infrastructure.

Without some form of subsidies, it is difficult to attract TNC investment into economies, communities and industry segments that are characterized by weak purchasing power and poor records of payment. In these cases, development finance institutions can act as catalytic financiers. Especially in such industries as electricity, water and transport, there is significant potential for synergies between foreign investment and overseas development assistance (ODA). By making more funds available, development partners and the home countries of the investing firms could play a major role in helping to "crowd in" foreign investment into infrastructure projects in developing countries.

While development partners have recently scaled up their ODA commitments for infrastructure development, current levels of support have not recovered from the earlier period of declining lending by multilateral banks, and they have not reached the levels promised in various international forums. Moreover, while development partners are yet to provide all the funds pledged to scale up infrastructure investments in low-income countries, existing funds are not being fully used – a situation that can sometimes be referred to as the "infrastructure paradox". Recent assessments show that the liquidity of development finance institutions is very high.

Development partners should honour their commitments related to ODA for infrastructure. Institutions that provide bilateral or multilateral development finance also need to become more willing to take risk and to allocate a greater share of their activities to the needs of low-income countries. In addition, they should keep all options open. While a strong case can often be made for facilitating greater involvement

of the private sector, including TNCs, other approaches should not be ruled out. In some projects, notably in water and some electricity segments, there may be strong arguments for keeping the operation of the services in public hands. But also in other industries, weak institutional capabilities may make private sector involvement too risky. In such situations, international efforts focused on supporting existing public sector producers may be more appropriate. Development partners should therefore give sufficient attention to financing infrastructure projects for which it may not be possible to mobilize private sector involvement.

### ...including to mitigate risk and build capacity in low-income countries.

Risk-mitigation measures by home countries and international organizations can help in the short term to mobilize private financing of infrastructure projects in developing and transition economies. Special attention may have to be given to measures aimed at mitigating three broad types of risk: political risk (including sub-sovereign and contractual and regulatory risks), credit risk and exchange-rate risks.

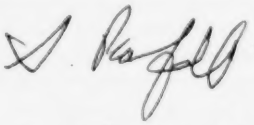
Despite the plethora of risk-mitigation instruments available, current programmes are insufficiently tailored to the situation of low-income countries. For example, local currency financing by development finance institutions typically requires a well-established currency swap market. Where such a market exists, intervention by development finance institutions is less likely to be needed. At the same time, risk-mitigation instruments should not be seen as a panacea. Too much risk mitigation may lead to problems of moral hazard and encourage reckless risk-taking on the part of investors and lenders. While risk-mitigation tools can facilitate the mobilization of private debt and equity, they do not make poorly structured projects more viable. This underscores the importance of capacity-building efforts.

Such efforts are especially important in LDCs. Depending on the specific circumstances of each country, assistance may need to be provided for developing legal and regulatory frameworks, assessing different policy and contractual options, preparing project proposals, and monitoring and enforcing laws, regulations and contracts. Considering the nature of the projects, governments at all levels – national, provincial and municipal – are in urgent need of assistance. While positive steps have been taken to meet these needs, current efforts remain vastly insufficient. Disturbingly, funds available for capacity-building are not always fully used.

Advisory services should be geared to providing advice not only on how to encourage investment, but also on how infrastructure can be made to fit into larger development plans and objectives. Most capacity-building support is currently provided by different financing institutions that often have a direct stake in the different projects. It would be worth exploring a more active role for the United Nations in this context. As a neutral party, the organization could complement existing players by, for example, helping developing-country governments in evaluating infrastructure contracts and developing negotiating skills. Improving the ability of governments in these areas should help secure greater development gains from investment inflows.

* * *

The development of physical infrastructure remains one of the most urgent areas for policymakers to address. The needs are huge, and meeting them will require greater use of the private sector, including TNCs. This applies particularly to LDCs, where infrastructure improvements are critical to their attainment of the MDGs. At the same time, low-income countries are often poorly equipped to both attract TNCs into infrastructure and maximize the benefits from TNC involvement. Whatever mix of private and public sector involvement is chosen, adequate institutions and enforcement mechanisms are essential to ensure efficient and equitable delivery of infrastructure services. Meeting the infrastructure challenge requires a concerted effort by all relevant parties. This implies an appropriate combination of improved governance and capabilities in host countries, greater support from the international community and responsible behaviour on the part of the investors.



Geneva, July 2008

Supachai Panitchpakdi
Secretary-General of the UNCTAD

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## *World Investment Report 2008: Transnational Corporations and the Infrastructure Challenge*

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## *Transnational Corporations and the Infrastructure Challenge*

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